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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,760	09/22/2006	Shinichi Chikura	UNIU79.074APC	9129

20995 7590 02/12/2009  
KNOBBE MARTENS OLSON & BEAR LLP  
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IRVINE, CA 92614

EXAMINER
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MENON, KRISHNAN S

ART UNIT	PAPER NUMBER
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1797

NOTIFICATION DATE	DELIVERY MODE
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02/12/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com  
eOAPilot@kmob.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/593,760	<b>Applicant(s)</b> CHIKURA ET AL.	
	<b>Examiner</b> Krishnan S. Menon	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,6,8,9,12 and 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,7,10 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/2/09, 6/24/08, 9/22/06</u> .                                | 6) <input type="checkbox"/> Other: _____                          |

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**DETAILED ACTION**

Claims 1-13 are pending as amended 2/2/09 in response to the restriction requirement of 1/2/09.

***Election/Restrictions***

Applicant's election with traverse of claims 1,2,5,7,10 and 11, in the reply filed on 2/2/09 is acknowledged. The traversal is on the ground(s) that the amended claims have unity of invention. This is not found persuasive because claim 1 is anticipated by the X reference as indicated in the restriction requirement, and thus there is no "special technical feature" linking the claims. The special technical feature must be a patentable limitation, which is absent, because of the X reference.

The requirement is still deemed proper and is therefore made FINAL.

***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

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be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1,2, 5, 10 and 11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 of copending Application No. 11/722,659. Although the conflicting claims are not identical, they are not patentably distinct from each other because they appear to recite similar limitations.

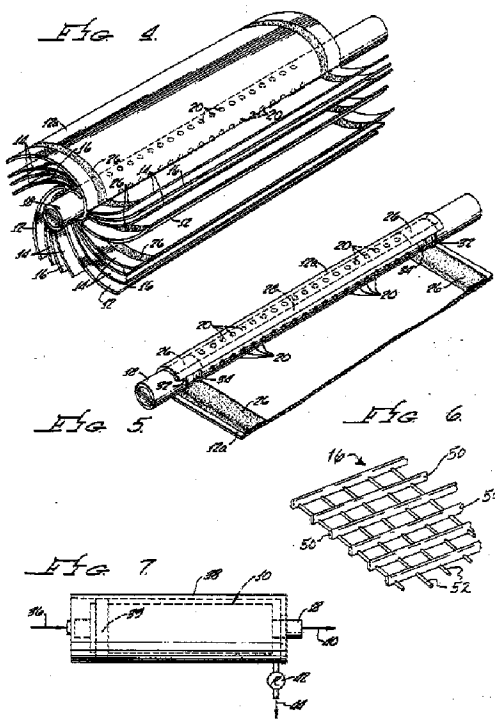
This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 102***

**1. Claims 1, 2 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Lien (US 4,902,417).**

As can be seen in the figures reproduced below, Lien teaches a spiral wound membrane element having feed spacer with warp yarns (50) in the direction of flow and the thinner weft yarns (52) crossing the flow direction – see fig 6. The material is fusion bonded polypropylene, Which is commercially available. The dimensional relations between the warp and the weft filaments are seen in column 6, as reproduced below.

U.S. Patent Feb. 28, 1990 Sheet 2 of 2 4,902,417



2,417

6

The ribs 50 are uniformly spaced apart from one another in a parallel grid-like formation which assures equal spacing between adjacent ribs. Preferably, the ribs may be spaced apart a distance equal to or between about 3 and about 10 times the width or diameter of the ribs. This uniform spacing is achieved by the use of cross filaments 52 which are arranged so as to preferably extend parallel to one another and transverse or generally perpendicular to the ribs 50. The cross filaments 52 are themselves uniformly spaced from one another and are of a height less than half the height of the ribs, and preferably less than about 25% of the height of the ribs. The spacing between adjacent filaments 52 is preferably between about 0.5 and about 1.5 times the spacing between the ribs, providing an overall open grid pattern for the sheet material in plan view.

### ***Claim Rejections - 35 USC § 103***

2. Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lien in combination with Boberg et al (US 4,213,858), Thalman (US 6,106,715), and/or Jannek (US 4,022,692)

Lien'417 is described above. Lien also teaches the requirements of the feed carrier material - see C5, L32 - C6, L60. Since applicant elected claims 5 and 10 along with claim 2, it is assumed that the feed spacer material of claims 2, 5 and 10 are obvious equivalents, even if they appear structurally different.

The spacer as recited in claims 5 and 10 are also obvious equivalents of the spacer recited in claim 2 for the additional reasons presented below:

**Boberg** teaches tri-layer mesh as claimed for support of dialysis membranes – see fig 1.

**Thalman** teaches trilayer spacer for spiral wound elements as claimed – see figures 2 and 4. See also column 3, lines 8-38: one would use the teachings of this reference to design a feed space  $r$  for the various reasons discussed in this section.

**Jannek** teaches spacer material having weft and oblique filaments, weft being thicker than the oblique filaments – see fig 2.

As can be seen all these references teach spacer material, and since the primary purpose of the spacer material is to provide a low-pressure drop flow path and at the same time reduce the spacer thickness so that more membrane can be accommodated in the spiral wound, they are functionally equivalent. Applicant's specification also does not provide any additional evidence of patentability. The oblique filament structure is presented by Jannek, and the three-layer structure is presented by Thalman and Boberg. It would be obvious to combine the teachings of these references to arrive at applicant's invention because they provide nothing more than predictable results.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Sample can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Krishnan S Menon/  
Primary Examiner, Art Unit 1797